

software including one or more computer program instructions. For example, one or more of the procedures described above may be embodied by computer program instructions. In this regard, the computer program instructions which embody the procedures described above may be stored by a memory device **26** of an apparatus **25** employing an embodiment of the present invention and executed by a processor **20** of the apparatus **25**. As will be appreciated, any such computer program instructions may be loaded onto a computer or other programmable apparatus (e.g., hardware) to produce a machine, such that the resulting computer or other programmable apparatus implements the functions specified in the flowchart blocks. These computer program instructions may also be stored in a computer-readable memory that may direct a computer or other programmable apparatus to function in a particular manner, such that the instructions stored in the computer-readable memory produce an article of manufacture the execution of which implements the function specified in the flowchart blocks. The computer program instructions may also be loaded onto a computer or other programmable apparatus to cause a series of operations to be performed on the computer or other programmable apparatus to produce a computer-implemented process such that the instructions which execute on the computer or other programmable apparatus provide operations for implementing the functions specified in the flowchart blocks.

[0053] Accordingly, blocks of the flowchart support combinations of means for performing the specified functions and combinations of operations for performing the specified functions for performing the specified functions. It will also be understood that one or more blocks of the flowchart, and combinations of blocks in the flowchart, may be implemented by special purpose hardware-based computer systems which perform the specified functions, or combinations of special purpose hardware and computer instructions.

[0054] In some embodiments, certain ones of the operations above may be modified or further amplified. Furthermore, in some embodiments, additional optional operations may be included. Modifications, additions, or amplifications to the operations above may be performed in any order and in any combination.

[0055] The method, apparatus **25** and computer program product may be utilized in various scenarios. In one embodiment, images could be provided via user interface **22** or a communication interface **24**. Alternatively, images could be captured real-time by camera **28**.

[0056] Many modifications and other embodiments of the inventions set forth herein will come to mind to one skilled in the art to which these inventions pertain having the benefit of the teachings presented in the foregoing descriptions and the associated drawings. Therefore, it is to be understood that the inventions are not to be limited to the specific embodiments disclosed and that modifications and other embodiments are intended to be included within the scope of the appended claims. Moreover, although the foregoing descriptions and the associated drawings describe example embodiments in the context of certain example combinations of elements and/or functions, it should be appreciated that different combinations of elements and/or functions may be provided by alternative embodiments without departing from the scope of the appended claims. In this regard, for example, different combinations of elements and/or functions than those explicitly described above are also contemplated as may be set forth in some of the appended claims. Although specific terms are

employed herein, they are used in a generic and descriptive sense only and not for purposes of limitation.

1-35. (canceled)

36. A method comprising:

receiving a subject facial image;
determining statistical property measurements for respective pixels in at least one block of the subject facial image;
converting the statistical property measurements into a feature vector; and
identifying, by a processor, at least one characteristic of the subject facial image by utilizing the feature vector.

37. A method of claim **36** wherein:

the converting further comprises creating at least one histogram of bins, wherein a bin is associated with a unique statistical property measurement value and a bin frequency represents a number of pixels in the at least one block measuring at the unique statistical property measurement value.

38. A method of claim **36** further comprising:

receiving a training group of facial images comprising at least a plurality of facial images of the same subject;
applying block division to the training group;
classifying images in the training group following the application of block division;
utilizing results of the classification to determine a learned dimension compression matrix;
receiving an evaluation group of facial images comprising at least a plurality of facial images of the same subject;
applying the block division to the evaluation group;
applying the learned dimension compression matrix to the evaluation group following application of the block division; and
evaluating the block division based on results of applying the learned dimension compression to the evaluation group.

39. A method of claim **36** further comprising:

identifying a plurality of blocks of a facial image in which at least one block overlaps another block.

40. A method of claim **36** further comprising:

assigning a block of the facial image a weight; and
incorporating the weight into the feature vector.

41. A method of claim **40** wherein assigning a block of the facial image a weight further comprises:

receiving a training group of facial images;
analyzing changes in a classification error rate throughout classification iterations with variable block weights; and
determining an ideal weight by analyzing a block's impact on the classification error rate.

42. A method of claim **36** further comprising:

identifying a plurality of key points of the facial image;
measuring distances from a pixel to a plurality of key points; and
encompassing the pixel and a closest key point in a block.

43. A method of claim **36** further comprising:

assigning a weight to a facial feature point of the facial image; and
utilizing the weight in normalizing the facial image.

44. An apparatus comprising at least one processor and at least one memory including computer program code, the at least one memory and the computer program code configured to, with the processor, cause the apparatus to at least: